Research on the Cultivation Paths of Digital Literacy for College Counselors under the Background of Digital Transformation

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Abstract: *In the wave of digital transformation in education, the cultivation of digital literacy among university counselors is crucial. This paper analyzes the connotations and components of digital literacy for university counselors, outlines the current status and issues, and explores cultivation pathways from multiple dimensions, including awareness enhancement, professional training, platform construction, and mechanism building. The aim is to improve counselors' digital literacy and promote the digital development of higher education and innovation in ideological and political education.*

Keywords: *Digital Transformation; University Counselors; Digital Literacy; Cultivation Pathways*

1. Introduction

With the rapid development of information technology, digital transformation has deeply penetrated the education field, reshaping the educational ecosystem. As the core force in university students' ideological and political education, university counselors' level of digital literacy directly affects the digitalization process of education and the effectiveness of student development [1]. In this context, a thorough study of the cultivation pathways of digital literacy for university counselors is of great significance for improving the quality of counseling work, promoting the comprehensive development of students, and advancing the modernization of higher education.

2. Connotations and Components of Digital Literacy for University Counselors

2.1 Connotations

Digital literacy for university counselors involves the ability to use technology for information processing and communication in a digital environment to innovate ideological and political education and student management. It integrates digital skills, educational concepts, and ideological education literacy, helping counselors adapt to educational changes, accurately understand students' thoughts, and enhance the effectiveness of educational guidance [2]. Counselors utilize digital technology to efficiently collect student data, provide personalized guidance through analysis, and promptly identify and support students facing difficulties. In ideological and political education, counselors employ multimedia and online platforms to enrich teaching and guide students in establishing correct values.

2.2 Components

Digital Awareness: This involves recognizing the strategic significance of digital technology in education, including insights into the impact of digital trends, acceptance and exploration of new technologies, and the ability to assess risks and opportunities in a digital environment. It lays the foundation for the development of digital literacy.

Digital Knowledge and Skills: This includes mastering the principles of digital technology, proficient use of educational digital tools, and the ability to solve problems related to the application of digital technology, ensuring a smooth process in educational digitalization.

Digital Application Ability: Enhancing digital technology skills helps counselors carry out

educational management tasks more efficiently. This is reflected in innovative teaching design, implementation of digital educational activities, and scientific evaluation of students' learning outcomes, optimizing the educational process.

Digital Social Responsibility: Counselors must comply with digital laws and regulations, regulate online behavior, strengthen data and network security, actively promote positive digital energy, and create a healthy online culture [3].

3. Current Status of Digital Literacy for University Counselors

3.1 Achievements

Some universities have begun to recognize the importance of cultivating digital literacy for counselors and have initiated various digital technology training courses and special lectures. These cover topics such as new media applications, operation of online ideological and political platforms, etc., which have enhanced counselors' basic digital skills to some extent. A few counselors have proactively explored digital education methods, such as using short video platforms to conduct micro-classes on ideological and political education. This innovation has increased the appeal and spread of educational content. In terms of student management, some universities have developed digital management systems that enable counselors to more conveniently access student information, analyze student behavior data, and improve management efficiency and accuracy.

Some universities have invited educational technology experts or corporate technicians to conduct training for counselors on new media applications. Training contents include the management of WeChat public accounts, short video production skills, and the use of live-streaming platforms. These trainings have taught counselors how to use new media platforms to deliver ideological and political education content, such as creating engaging short videos to explain party theory, or hosting online lectures via live-streaming platforms. These activities have attracted students' attention and participation. In terms of online ideological and political platforms, counselors have mastered the functionality and usage of platforms developed or purchased by the university, enabling them to upload course materials, organize student discussions, and conduct online tests, improving the informatization of ideological and political education.

Regarding digital management systems, some universities have developed integrated student management information systems, consolidating student academic records, grade data, attendance records, and awards/punishments. Counselors can quickly access and analyze student information through these systems, allowing them to promptly identify issues and needs. For example, by analyzing grade data, counselors can identify students with learning difficulties and create personalized learning plans for them. By analyzing attendance records, counselors can gain insights into students' learning attitudes and living habits and communicate with those who exhibit abnormal patterns.

3.2 Existing Problems

Uneven Overall Level: There are significant disparities in digital literacy among counselors across different universities, age groups, and academic backgrounds. Some counselors at leading universities, due to abundant resources and numerous training opportunities, are more proficient in applying and innovating with digital technologies. However, counselors in some regional institutions or those with liberal arts backgrounds may face difficulties in understanding and operating digital technologies, leading to imbalanced development, which limits the collaborative enhancement of digital literacy across university counseling teams.

Leading universities often have access to more educational resources and funding support, allowing them to invite renowned experts to hold digital literacy training seminars and workshops, providing counselors with more learning and exchange opportunities. For instance, some 985 and 211 universities regularly organize domestic and international education technology training and academic conferences, giving counselors the chance to engage with cutting-edge digital technologies and educational concepts. On the other hand, some regional institutions may lack the funding to provide such training opportunities, resulting in slower progress in counselors' digital literacy. Additionally, counselors with liberal arts backgrounds may struggle more with technical learning, particularly when it comes to understanding and applying complex digital technology principles and tools. They require more time and effort to improve their digital literacy.

Disconnection Between Training and Practice: Currently, many training sessions focus mainly on theoretical explanations and tool demonstrations, but lack real educational scene simulations and practical guidance. As a result, counselors may grasp theoretical knowledge but struggle to apply it flexibly in actual work, making it difficult to effectively address students' online ideological issues or conduct in-depth digital education activities. This gap means that training effects often fail to translate into improvements in practical work skills.

In some training courses, instructors primarily explain digital technology theories and basic tool operation methods without incorporating case studies or practical exercises based on counselors' actual work situations. For example, when introducing big data analysis tools, instructors might only cover the tools' functionalities and operational steps without guiding counselors on how to apply these tools to tasks like analyzing students' ideological trends or studying their learning behaviors. This lack of practical application means that counselors, although they acquire some digital knowledge and tool skills during the training, often do not know how to apply them when encountering real-world problems. Moreover, there is insufficient guidance on how to analyze and address students' online ideological dilemmas or inappropriate online behavior, leaving counselors without effective solutions or guidance skills when facing such challenges.

4. Pathways for Cultivating Digital Literacy for University Counselors

4.1 Strengthening Digital Literacy Awareness

The education department should issue special policy documents to clearly define the strategic significance and core requirements for improving digital literacy among university counselors, and incorporate digital literacy into the professional competence standards for counselors. This will guide universities and counselors to emphasize the importance of digital literacy cultivation. Universities should organize special learning activities to thoroughly interpret educational digitalization policies, trends, and typical cases, helping counselors deeply understand the critical role of digital literacy in the innovation of ideological education and students' overall development. This approach should highlight the necessity and importance of digital education, constantly updating educational concepts, and proactively embracing digital transformation.

The education department can formulate an "Action Plan for Improving Digital Literacy for University Counselors," specifying the requirements and assessment standards for counselors in areas such as digital technology knowledge, digital education capabilities, and digital social responsibility. For instance, counselors should be required to have certain programming skills, the ability to use data analysis tools for student management and educational analysis, and proficiency in monitoring and responding to online public opinion. Universities can organize counselors to participate in lectures on the interpretation of digital education policies, academic seminars, and other activities, inviting experts and policymakers in the field of education to provide insights. For example, organizing a seminar on "Digital Transformation in Education and Innovation in Counselor Work," where experts can introduce the latest trends in educational digitalization and successful case studies from both domestic and international institutions, will guide counselors in learning from advanced experiences and exploring innovative digital education methods.

4.2 Perfecting the Professional Training System

A comprehensive training system is essential for enhancing the digital teaching abilities of university counselors, and it plays a crucial role in their ongoing development. A diverse training approach should be provided, which includes both online and offline training methods.

Online Training: Utilizing national smart education platforms and university online course resources, universities can provide a rich library of digital literacy courses to support counselors' self-directed learning, online testing, and interactive communication. For example, courses such as "Educational Big Data Analysis and Application" or "Smart Education Technology Basics" on platforms like China University MOOC or "New Media Literacy and Educational Communication" on XuetangX can be accessed based on individual needs and time availability.

Offline Training: This includes workshops and practical sessions led by educational technology experts and ideological education scholars. These face-to-face training sessions will enhance counselors' practical skills, such as conducting "Python Programming for Student Data Analysis" workshops or

"Operating Ideological and Political Education New Media Platforms" workshops to familiarize counselors with the hands-on creation, delivery, and interaction on platforms like WeChat and Douyin.

Field Visits: Organizing visits to digital education demonstration universities and corporate research centers will provide counselors with the opportunity to learn from advanced experiences and explore technology application scenarios.

Participation in Conferences: Encouraging counselors to participate in academic conferences and competitions related to digital literacy will allow them to improve their skills through exchange and competition.

4.3 Strengthening the Development of Digital Resource Platforms

Creating a smart work platform is essential for enhancing counselors' work efficiency. This platform should integrate multiple modules, such as student information management, ideological trend monitoring and analysis, educational activity organization and implementation, and family-school communication. By using big data and artificial intelligence technologies, the platform can automate data collection and analysis, provide intelligent warnings, and recommend personalized educational plans, thus improving counselors' decision-making and work efficiency.

Student Information Management Module: This module should integrate students' academic records, grades, disciplinary records, campus card data, library borrowings, etc. Big data analytics can generate comprehensive student profiles, including aspects like learning ability, hobbies, and consumption habits.

Ideological Trend Monitoring and Analysis Module: By capturing students' statements and behaviors on campus forums and social media platforms, natural language processing and sentiment analysis technologies can be applied to detect fluctuations in students' thoughts and identify potential issues. For example, if negative emotions are frequently expressed online, the system will alert counselors to intervene.

Educational Activity Management Module: This allows counselors to digitally manage the publication of educational activity notices, sign-ups, and event materials.

Family-School Communication Module: This module will facilitate communication between counselors and students' parents, such as sending reports on students' campus performance or academic alerts.

The platform should also include a "Digital Literacy Learning and Growth" section, which will provide online courses, learning communities, and practice projects. Counselors can engage in continuous learning and enhance their digital literacy through these resources.

4.4 Establishing a Sound Guarantee Mechanism

Institutional Support: Universities should establish a comprehensive system to guarantee the cultivation of digital literacy for counselors, which includes clear policies for training planning, evaluation, and incentives. This system will ensure that digital literacy assessments are integrated into counselors' annual performance evaluations, title assessments, and award systems.

Training Planning: Universities should develop detailed training plans based on counselors' different levels and needs. For example, new counselors should complete at least 40 hours of basic digital literacy training in their first year, including computer fundamentals, network security knowledge, and common educational software applications. More experienced counselors should participate in advanced training, including courses on digital education design and data analysis tools.

Evaluation and Assessment: A multi-dimensional evaluation approach should be adopted, including not only theoretical exams but also practical assessments, such as completing digital education projects like designing an online course or a student management plan based on data analysis. Student feedback on counselors' use of digital technologies in education activities should also be collected through surveys and focus groups to assess the impact of digital literacy on their development.[4-7]

Incentive and Promotion: Counselors who excel in digital literacy should be given priority in promotions and title evaluations. For example, published papers on digital literacy or involvement in digital education projects can contribute to the evaluation of their professional achievements. Additionally, a "Digital Literacy Outstanding Counselor" award should be set up, providing both material rewards and recognition, which will encourage counselors to actively improve their digital literacy.

5. Conclusion and Outlook

In the context of accelerating digital transformation, cultivating digital literacy among university counselors is a long-term and systematic process. By promoting a collaborative approach through enhancing awareness, improving training, building platforms, and establishing sound mechanisms, it is possible to comprehensively improve counselors' digital literacy. This will enable them to better adapt to the demands of educational digitalization, fully leverage digital technologies in ideological education and student management, foster students with both digital literacy and innovative capabilities, and contribute to the modernization of university education. Future research could focus on developing a more precise digital literacy evaluation system, exploring the deep integration of emerging technologies into cultivation pathways, and localizing international experiences, continuously improving the digital literacy cultivation system for university counselors, and providing strong talent support for the digital development of higher education.[8]

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